

Claims

1. A bumper beam for a vehicle, comprising an outer profile (14) with a bow-formed central flange (16) and two webs (17,18), and a cover (15) that provides a closed profile, the outer profile being adapted to be fastened with its central flange facing outwards from the vehicle,
characterised in that
the cover (15) has a central flange (24) and two webs (25,26), and the two webs (25,26) of the cover are coupled in pairs with the two webs (17,18) of the outer profile (14), the web height of the cover (15) at its centre being greater than the web height of the outer profile (14) at its centre.
2. A bumper beam according to claim 1; **characterised in that** the web height of the outer profile (15) increases continuously sideways from its centre and the web height of the cover (15) decreases continuously sideways from its centre.
3. A bumper beam according to claim 1 or 2, **characterised in that** the depth of the bumper beam at its centre is at least 130% of the depth of the bumper beam at its fastening portions, and the central flange (24) of the cover extends substantially linearly between these fastening portions.
4. A bumper beam according to claim 3; **characterised in that** its depth at its centre is at least 160% of its depth at its fastening portions.
5. A bumper beam according to any one of the preceding claims, **characterised in that** the webs of the cover have transverse stiffeners (23).
6. A bumper beam according to any one of the preceding claims, **characterised in that** the outer profile (14) and the cover (15) are welded together.
7. A bumper beam according to claim 6, **characterised in that** both the outer profile (14) and the cover (15) have side flanges that end their webs, and these side flanges (19 and 27; 20 and 28) are welded together.
8. A bumper beam according to any one of the preceding claims, **characterised in that** the sheet of the cover has a lower yield strength than the sheet of the outer profile.
9. A bumper beam according to any one of the preceding claims **characterised in that** the sheet thickness of the cover (15) is less than the sheet thickness of the outer profile (14).
10. A bumper beam according to any one of the preceding claims, **characterised in that** the sheet of the cover has a lower yield strength than the sheet of the outer profile.
11. A bumper beam according to any one of the preceding claims **characterised in that** the sheet thickness of the cover (15) is less than the sheet thickness of the outer profile (14).